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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,179	02/01/2002	Jens U. Quistgaard	019162-003110US	1680

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EXAMINER

JAWORSKI, FRANCIS J

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/062,179	Applicant(s) QUISTGAARD ET AL. <i>CM</i>	
	Examiner Jaworski Francis J.	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11182004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22, 37 and 76-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22, 37 and 76-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09092002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

[Parenthesized claim numbers pertain to the specific claim or claims being addressed by the immediately preceding rejection.]

Claims 12 –13, 21-22, 37, 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Wood et al (US6561979) and Schmeising et al (US5634465). The former teaches a portable ultrasound device having transducer, beamformer, image processor and a plurality of digital signal processors for filtering, detection and scan conversion mapping, as well as a

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display thereon for combined display of the EKG (ECG) obtained through the transmit controller 12 along with an image from the ultrasound device, see col. 26 lines 10 – 20. Wood et al define their device as both portable (col. 34 lines 55-61 and handheld (col. 35 lines 28-39) however they do not specifically teach that the system has a portable ECG module. However it would have been obvious in view of Schmiesing et al 80, 82 to provide a portable ECG device in a combined ECG-and –spectral-doppler display system as shown in (Fig. 7 and col. 6 line 60- col.8 line 9) and as used in Wood et al since otherwise the portability/handheld – 5# embodiments would be negated by cumbersome ECG full scale equipment that Wood et al are seeking to avoid. Conversely, since Schmiesing disclose all save the use of digital signal processors as taught in Wood et al, the former may be modified by the latter to achieve the same composite teaching of all the claimed elements of the base claims. (Claims 12, 37).

The ECG module as shown in Schmiesing et al would necessarily receive power from the system defined as handheld in consideration of the 5# weight and handle 208 suggestions in Wood et al whereupon capacitive coupling would be a form of filtering thereto. (Claims 13, 76).

In Schmiesing et al the array 10 is coupled via cable to beamformer 14. (Claim 21).

In Wood et al the transducer assembly is integral with the overall portable device. (Claim 22).

Claims 14 -17, 20, 77-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al and Schmiesing et al as applied to claims 12, 37 above, and further in view of Groch et al (US4649430). Whereas the former are silent as to isolation, it would have been obvious in view of the latter to include isolation amplification stage 154 along with filtering by capacitive coupling and prior to further amplification 166 in order to prevent the patient from possible electric shock applied to the cardiothoracic area; the arguments against claims 21-22 supra otherwise apply. (Claims 14-17, 20, 77-80)

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al and Schmiesing et al as applied to claim 12 above, and further in view of Traub et al (US5427111). Whereas the former are silent as to isolation between amplification and filtering stages, it would have been obvious in view of Traub et al to provide optical or transformer isolation on the output 13 of the initial amplification stage in order to protect the patient from electrical shock. (Claims 18, 19).

Applicant's amendment has mooted the previous rejection argument but has necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory


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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738

FJJ:fjj

01102005


Francis J. Jaworski
Primary Examiner